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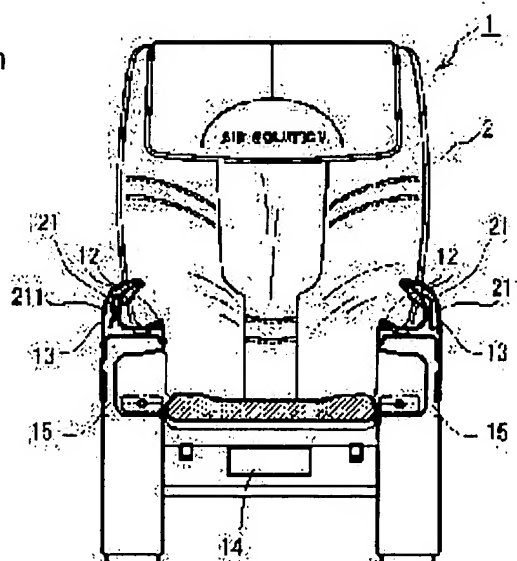
(54) THERAPEUTIC DEVICE QUIPPED WITH HAND MASSAGING FUNCTION

(57)Abstract:

PROBLEM TO BE SOLVED: To provide the therapeutic device equipped with the hand massaging function which is capable of stably loading the hand and arm sections thereon for effective treatment by intermittently applying appropriate compressed air onto the human hand sections.

SOLUTION: The therapeutic device is equipped with a means for supplying and exhausting the compressed air (a unit 14 for supplying and exhausting the compressed air through the contraction and expansion bag 12 and the respective hoses 13, 13 attached to each contraction and expansion bag 12, 12) that can afford the treatment by contraction and expansion for the human hand sections 3 to be appropriately loaded on the upper

surface of the chair body 2 installed on the arm rest section 21 along the arc-shaped standing walls 211 formed one-sidedly over the elbow width, where an operator in his sitting position can stably hold the human hand sections 3 on the upper surface of the arm rest sections 21, 21 on both sides for effective treatment with the compressed air to be applied from the upper side surface of the human hand sections 3 as well as the arm sections.



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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] the pinch-and-swell device which does expansion and contraction of this invention according to the feeding and discarding of the compressed air -- free medical treatment -- with [equipped with the device in which free medical treatment is given by applying pressure to a person's hand part intermittently] a hand kneading function -- free medical treatment -- it is related with a machine.

[0002]

[Description of the Prior Art] Generally what carried out the interior of said same bag body for the conventional chair type massage machine carrying out the interior of the bag body expanded and contracted according to an air pressure change in order to massage the lumbar part, regions of back, and cervix of the body in the back reclining section which can be put down in the thing of for example, a pneumatic pressure use type, and massaging a hip and a femoral region to the seat, and constituted it is known.

[0003] Moreover, in addition to the above configurations, in recent years, the chair type pneumatic pressure massage machine which prepared and constituted ***** which carried out the interior of the same bag body as the above for massaging the leg, and which can be appeared frequently is also a well-known thing.

[0004] It is necessary to make each bag body arranged so that it might correspond at least to above-mentioned each part of the body open compressed-air feeding-and-discarding equipment for free passage through a hose in the above chair type pneumatic pressure massage machines, to this so that pumping of air may be made to perform.

[0005] Moreover, although this compressed-air feeding-and-discarding equipment is installed so that interior may be carried out to the bottom of the seat etc., the compressed air by which feeding and discarding are carried out from this feeding-and-discarding equipment can mind said hose, can expand and shrink a bag body, can be massaged by pressing at least above-mentioned each part of the body intermittently, and can be made to perform little fricative massage as compared with the massage with a massaging ball, a roller, etc.

[0006] moreover, the thing for which a reclining device is prepared in the back reclining section of the chair which adopted the above-mentioned chair type pneumatic pressure massage machine, and a frequent appearance device is prepared in ***** -- a user's body -- abbreviation -- since it changes into a level condition and a pneumatic pressure massage can be performed in this condition, a massage in the comparatively comfortable condition can be performed.

[Problem(s) to be Solved by the Invention]

[0007] In the chair type pneumatic pressure massage machine of this kind former Although the bag body expanded and contracted can be made to be able to continue and arrange in other parts besides the back reclining section Sagitta section according to an air pressure change, air supply and exhaust of the air can be carried out to each [these] bag body and the moderate pneumatic pressure massage can be

performed to a cervix besides the lumbar part of the body, or regions of back, a hip or a femoral region, or the leg, respectively The present condition is that the massage machine only for parts in the part of the body which cannot perform the pneumatic pressure massage especially to a hand part, and can massage such a hand part specially is not developed, either.

[0008] effective pneumatics [as opposed to / this invention is made in view of the above troubles, fix a hand part and an arm stably, and / a hand part or an arm] -- with [which can give free medical treatment] a hand kneading function -- free medical treatment -- it is made for the purpose of offering a machine.

[0009]

[Means for Solving the Problem] It is a machine. namely, with [of this invention] a hand kneading function -- free medical treatment -- a machine -- the top-face proper place of both the armrest section of the body of a chair -- a body hand part -- each **** -- free -- this body hand part -- pinch-and-swell -- the ** with a hand kneading function which arranged the compressed-air air-supply-and-exhaust means which can give free medical treatment -- free medical treatment -- this -- free medical treatment -- said each armrest section of a machine forms in the armrest section by which arc formation was carried out at the elbow cross direction 1 side and which started and established the wall respectively, and holds a body hand part stably on both the armrest section top face -- making -- pneumatics efficient to a hand part -- it is characterized by enabling it to make free medical treatment give.

[0010] moreover, with [of this invention] a hand kneading function -- free medical treatment -- a machine constitutes said compressed-air air-supply-and-exhaust means from a pinch-and-swell bag arrange by each standup wall of both the armrest section, and compressed-air feeding-and-discarding equipment open for free passage by each pinch-and-swell bag through an each hose, and holds a body hand part stably on both the armrest section top face -- make -- start -- the pinch-and-swell bag by the side of a wall -- the hand part side -- efficient -- pneumatics -- it is characterize by enable it to make free medical treatment give.

[0011] furthermore, with [of this invention] a hand kneading function -- free medical treatment -- a machine said compressed-air air-supply-and-exhaust means with the pinch-and-swell bag arranged in a side besides the pinch-and-swell bag arranged by each standup wall of both the armrest section, and the elbow cross direction With the pinch-and-swell bag which consists of compressed-air feeding-and-discarding equipment respectively opened for free passage by both ***** through a hose, is made to hold a body hand part stably on both the armrest section top face, starts, and is arranged in a side besides the pinch-and-swell bag and the elbow cross direction by the side of a wall hand part both sides -- pinching -- efficient -- pneumatics -- it is characterized by enabling it to make free medical treatment give.

[0012] furthermore -- again -- with [of this invention] a hand kneading function -- free medical treatment -- the pinch-and-swell bag group to which the pinch-and-swell bag with which a machine is arranged in said both armrest section carried out the polymerization of the two or more pinch-and-swell bags -- constituting -- pneumatics [reinforcement / a hand part] -- it is characterized by enabling it to make free medical treatment give efficiently.

[0013] moreover, with [of this invention] a hand kneading function -- free medical treatment -- the body hand part contact side of the pinch-and-swell bag with which a machine is arranged in said both armrest section -- free medical treatment -- a projection -- arranging -- pneumatics [reinforcement / a hand part] -- it is also characterized by constituting so that free medical treatment can be given proper.

[0014] furthermore, with [of this invention] a hand kneading function -- free medical treatment -- a vibration a machine makes it arrange an oscillating member in a proper place to vibrate said both armrest section top face, and according to an oscillating member to a hand part -- a compressed air with free medical treatment and a pinch-and-swell bag -- it is characterized by constituting so that free medical treatment can be made to give arbitration by coincidence or independent.

[0015] therefore, with [of this invention] a hand kneading function -- free medical treatment -- a machine brings about the following operations by constituting as mentioned above. In a machine first, with [of this invention] a hand kneading function -- free medical treatment -- In the top-face proper

place of the body of a chair prepared in both sides, the armrest section by which arc formation was carried out at the elbow cross direction 1 side and which started and established the wall a body hand part -- each **** -- free -- this body hand part -- pinch-and-swell -- since the compressed-air air-supply-and-exhaust means which can give free medical treatment is arranged -- free medical treatment -- a person can make a body hand part able to hold stably on both the armrest section top face in the state of taking a seat, and can do pneumatics free medical treatment efficiently from the top side of a body hand part and an arm.

[0016] moreover, with [of this invention] a hand kneading function -- free medical treatment -- since the machine constitutes the compressed-air air-supply-and-exhaust means from a pinch-and-swell bag arranged by each standup wall of both the armrest section, and compressed-air feeding-and-discarding equipment opened for free passage by each pinch-and-swell bag through an each hose -- the pinch-and-swell bag by the side of a standup wall -- a body hand part and an arm -- from a top side -- efficient -- pneumatics -- free medical treatment can be made to give

[0017] furthermore, with [of this invention] a hand kneading function -- free medical treatment -- a machine said compressed-air air-supply-and-exhaust means with the pinch-and-swell bag arranged in a side besides the pinch-and-swell bag arranged by each standup wall of both the armrest section, and the elbow cross direction Since it constitutes from compressed-air feeding-and-discarding equipment respectively opened for free passage by both ***** through a hose, start and a body hand part is pinched from both sides with the pinch-and-swell bag by the side of a wall, and the pinch-and-swell bag arranged in a side besides the elbow cross direction. a body hand part and an arm -- from a top side and the lower part -- efficient -- pneumatics -- free medical treatment - pneumatics pinching -- free medical treatment - pneumatics Oshiage -- free medical treatment can be made to give

[0018] furthermore, with [of this invention] a hand kneading function -- free medical treatment -- the pneumatics which pinches a body hand part and an arm in sequential multiplication with the pinch-and-swell bag of a pinch-and-swell bag group, and has a feeling of oppression by reinforcement since the pinch-and-swell bag arranged in both the armrest section constitutes the machine in the pinch-and-swell bag group to which the polymerization of the two or more pinch-and-swell bags was carried out -- free medical treatment can be made to give efficiently

[0019] moreover, with [of this invention] a hand kneading function -- free medical treatment -- the body hand part contact side of the pinch-and-swell bag with which a machine is arranged in said both armrest section -- free medical treatment -- the case where the body hand part contact side of a pinch-and-swell bag expands since the projection is arranged -- this free medical treatment -- the reinforcement pneumatics a projection contacts this hand part and an arm and according to this -- free medical treatment can be given proper.

[0020] It is that a person chooses pinch-and-swell actuation of a pinch-and-swell bag, and oscillating actuation of an oscillating member as arbitration, and operates these by coincidence or independent. furthermore, with [of this invention] a hand kneading function -- free medical treatment -- since it is making it arrange an oscillating member in a proper place that a machine vibrates said both armrest section top face -- free medical treatment -- a vibration according to an oscillating member to a body hand part or an arm -- a compressed air with free medical treatment and a pinch-and-swell bag -- free medical treatment and the oscillating pneumatics by these both -- selection implementation of the free medical treatment can be carried out suitably.

[0021]

[The mode of implementation of invention] with [of the following and this invention] a hand kneading function -- free medical treatment -- this is explained to a detail based on 1 operation gestalt which shows a machine to a drawing. It is the explanatory view showing 1 operation gestalt of a machine. drawing 1 -- with [of this invention.] a hand kneading function -- free medical treatment -- It is the explanatory view showing 1 operation gestalt which the pinch-and-swell bag of the compressed-air air-supply-and-exhaust means in a machine contracted. drawing 2 -- with [of this invention] a hand kneading function -- free medical treatment -- It is the explanatory view showing 1 operation gestalt in which the pinch-and-swell bag of the compressed-air air-supply-and-exhaust means in a machine

expanded. drawing 3 -- with [of this invention] a hand kneading function -- free medical treatment -- It is the explanatory view showing 1 operation gestalt of the armrest section equipped with the compressed-air air-supply-and-exhaust means in a machine. drawing 4 thru/or drawing 9 -- with [of this invention] a hand kneading function -- free medical treatment -- drawing 10 -- with [of this invention] a hand kneading function -- free medical treatment -- the explanatory view showing 1 operation gestalt of a machine -- it is -- drawing 11 -- with [of this invention] a hand kneading function -- free medical treatment -- the perspective view showing 1 operation gestalt of a machine -- it is -- drawing 12 and drawing 13 -- with [of this invention] a hand kneading function -- free medical treatment -- it is the busy condition Fig. showing 1 operation gestalt of a machine.

[0022] namely, with [of this invention] a hand kneading function -- free medical treatment -- a machine 1, as shown in drawing 10 and drawing 11 the armrest section 21 by which arc formation was carried out at the elbow cross direction 1 side and which started and established the wall 211 -- the both sides of the body 2 of a chair -- preparing -- **** -- the top face of the armrest section 21 -- the body hand part 3 -- each **** -- free -- this body hand part 2 -- pinch-and-swell -- so that free medical treatment can be given Arrange a compressed-air air-supply-and-exhaust means (compressed-air feeding-and-discarding equipment 14 respectively opened for free passage by the pinch-and-swell bag 12 and each pinch-and-swell bag 12-12 through a hose 13-13), and it changes. free medical treatment -- a person makes the body hand part 3 hold stably on the 21-both armrest section 21 top face in the state of taking a seat, and it constitutes so that pneumatics free medical treatment can be efficiently carried out from the top side of the body hand part 3 and an arm.

[0023] moreover, with [said] a hand kneading function -- free medical treatment -- a machine 1, if a stationary plate 11 is arranged in the top-face proper place of both the armrest section 21-21 of the body 2 of a chair, the pinch-and-swell bag 12 is arranged in the at least 1 side of up right and left of this stationary plate 11 and it requires, as shown in drawing 1 Consist fixed spacing in up right and left of this stationary plate 11, and the pinch-and-swell bag 12-12 is opposite-**(ed). Arrange the compressed-air feeding-and-discarding equipment 14 which is carrying out the interior of these to the interior of each armrest section 21, and is connected to the seat lower part of the body 2 of a chair at an external power (not shown), and a hose 13-13 is respectively interposed between this equipment 14 and each pinch-and-swell bag 12.12. Each pinch-and-swell bag 12-12 is made to coordinate the air supply and exhaust from compressed-air feeding-and-discarding equipment 14 through a hose 13-13, and it enables it to repeat and carry out pinch-and-swell [of each pinch-and-swell bag 12-12] in the cycle for every predetermined time amount.

[0024] By and the thing which it changes into the condition of having bent in the arc the 1 side of the stationary plate 11 shown by said drawing 1, and having made the fishhook configuration setting up, and is done to the armrest section 21 for the interior of this being able to form drawing 10 and in the shape of [like drawing 11] an appearance, and changing into such a condition -- free medical treatment -- a taking-a-seat condition as the person showed to drawing 12 and drawing 13 -- the body hand part 3 on both the armrest section 21-21 -- the pneumatics from the top side -- free medical treatment -- it can be made **** for obtaining.

[0025] Moreover, the pinch-and-swell bag 12 arranged in the top-face proper place of both the armrest section 21-21 of said body 2 of a chair Although what is necessary is just to arrange the pinch-and-swell bag 12 in ups-and-downs side 1 side even if there are little up right and left of the stationary plate 11 bent in the arc, as mentioned above As fixed spacing was consisted in up right and left of this stationary plate 11, and the pinch-and-swell bag 12-12 of a pair was made to opposite-** or was shown in drawing 2 and drawing 3 By consisting fixed spacing in up right and left of a stationary plate 11, and making the pinch-and-swell bag 12-12-12-12 (pinch-and-swell bag group) opposite-** in the shape of a polymerization, respectively Air supply and exhaust of the compressed air from compressed-air air-supply-and-exhaust equipment 14 can be carried out to these, pinch-and-swell can be carried out, sequential pinching of a user's body hand part 3 and arm can be carried out from the both sides by the side of a 1 side top face and the side lower part else, and free medical treatment with a feeling of oppression can be carried out now.

[0026] Drawing 4 thru/or drawing 6 are what shows 1 operation gestalt of the armrest section 21 which started and established the wall 211 by which arc formation was carried out at said elbow cross direction 1 side. The interior of the pinch-and-swell bag 12 by which fixed disposition was carried out at the standup wall 21 side of the stationary plate 11 by which arc ups and downs were carried out so that it might **** in the top-face configuration of the armrest section 21 which was arranged by the body 2 of a chair as described above, and which starts and has this standup wall 211 in a wall 211, and this stationary plate 11 is carried out. The hose 13 for carrying out air supply and exhaust of the compressed air from compressed-air feeding-and-discarding equipment 14 to this pinch-and-swell bag 12 is interposed in the shape of a free passage.

[0027] Moreover, drawing 7 thru/or drawing 9 are what shows other operation gestalten of the armrest section 21 which started and established the wall 211 by which arc formation was carried out at said elbow cross direction 1 side. As described above, it was arranged by the body 2 of a chair and starts. In a wall 211 The interior of the pinch-and-swell bag 12 arranged in a side besides the elbow cross direction of the pinch-and-swell bag 12 by which fixed disposition was carried out at the standup wall 21 side of the stationary plate 11 by which arc ups and downs were carried out so that it might **** in the top-face configuration of the armrest section 21 which has this standup wall 211, and this stationary plate 11, and the armrest section 21 is carried out. The hose 13 for carrying out air supply and exhaust of the compressed air from compressed-air feeding-and-discarding equipment 14 to both ***** 12-12 is respectively interposed in the shape of a free passage.

[0028] In addition, in case it arranges the pinch-and-swell bag 12, it is a thing for carrying out fixed disposition in the condition of having been stabilized on the armrest section 21 top face, but said stationary plate 11 does not need to prepare this, when the arrangement location is stable.

[0029] Moreover, 15 in drawing 4 thru/or drawing 9 is an oscillating member for vibrating said armrest section 21 top face, and is set on a drawing. What was arranged in the pars intermedia of the armrest section 21 was illustrated.

[0030] The attaching position is also suitably determined [whose a thing, electromagnetic thing, etc. which prepared the spindle member in the drive motor in the shape of eccentricity when vibrating armrest section 21 top face are] like [this oscillating member 15] a throat.

[0031] the case where the above-mentioned oscillating member 15 is formed -- free medical treatment -- a vibration a person can operate these by coincidence or independent by choosing pinch-and-swell actuation of the pinch-and-swell bag 12, and oscillating actuation of the oscillating member 15 as arbitration, and specifically according to the oscillating member 15 -- a compressed air with free medical treatment and the pinch-and-swell bag 12 -- free medical treatment and the oscillating pneumatics by these both -- free medical treatment -- free medical treatment -- selection implementation can be suitably carried out to a person's body hand part 3 and arm.

[0032] although 22 is the external power of the remote control switch connected to compressed-air feeding-and-discarding equipment 14 and the case where this external power 22 is arranged in the armrest section 21 inside by the side of one is illustrated in drawing 13 -- free medical treatment -- in order to enable it to make a power-source change easy for a person, and safe perform, it is desirable to make it arrange in an armrest section 21 top-face proper place, or the location corresponding to a body hand part 3 fingertip location of the armrest section 21 and its suburbs.

[0033] In addition, said pinch-and-swell bag 12 is good also as a bag body which has elasticity, is constituted from synthetic fibers, such as materials, such as polyurethane effective in air leak prevention, and 6-nylon effective in swelling past prevention, by saccate, and uses synthetic fibers, such as polyurethane effective in air leak prevention, for the material of an inner layer, for example, swells too much for the material of an outer layer, and has an inside-and-outside bilayer using synthetic fibers, such as 6-nylon effective in prevention.

[0034] the free medical treatment to which 12a was arranged in the top-face section of said pinch-and-swell bag 12 -- a projection -- it is -- this -- free medical treatment -- the case where are making projection 12a arrange and the body hand part 3 contact side of the pinch-and-swell bag 12 expands -- this free medical treatment -- the reinforcement pneumatics projection 12a contacts this hand part 3 and

an arm, and according to this -- free medical treatment can be given now proper.

[0035] in addition -- this -- free medical treatment -- projection 12a -- free medical treatment -- you may arrange for every fixed spacing on the bag 12 top face, and may prepare in irregular, and the configuration or configuration are not limited further, either.

[0036] Said hose 13 connects the end to said pinch-and-swell bag 12 while it is formed in the shape of hollow in synthetic resin, such as vinyl material, and connects the end face of this hose 13 to compression air-supply-and-exhaust equipment 14, and it mediates it for transmitting the air supply and exhaust from compression air-supply-and-exhaust equipment 14 to said pinch-and-swell bag 12, and carrying out pinch-and-swell [of this].

[0037] Said compressed-air feeding-and-discarding equipment 14 is equipment which contained air compressor styles, such as an electric air compressor, and is for carrying out air supply and exhaust of the compressed air to the above-mentioned pinch-and-swell bag 12 through said hose 13.

[0038] forming feeding-and-discarding path selection change means, such as a rotary bulb, in this compressed-air feeding-and-discarding equipment 14, although said compressed-air feeding-and-discarding equipment 14 is constituted so that it may be open for free passage into the pinch-and-swell bag 12 through a hose 13 as mentioned above -- it is -- the air supply and exhaust from air-supply-and-exhaust opening of this feeding-and-discarding equipment 14 -- free medical treatment -- a person can make it possible to choose and, thereby, the order of air supply and exhaust of each pinch-and-swell bag 12-12 can be changed to arbitration.

[0039] Moreover, in establishing a feeding-and-discarding path selection change means as mentioned above, the control means of the electronic circuitry which controls feeding-and-discarding path selection change means, such as a rotary bulb of said air-supply-and-exhaust control device (not shown), is made to build in, and it constitutes.

[0040] therefore, with [of above-mentioned this invention] a hand kneading function -- free medical treatment -- if it is using a machine 1 -- free medical treatment -- only inputting the external power 22 of the remote control switch which a person sits down to the seat of the body 2 of a chair, fixes the body hand part 3 on the armrest section 21, and is connected to compressed-air feeding-and-discarding equipment 14 -- the electric power supply from this power source 22 -- proper pneumatics efficient from the 1 side top-face side of the body hand part 3 and an arm -- free medical treatment can be made to give

[0041]

[Effect of the Invention] therefore, with [of this invention] a hand kneading function -- free medical treatment -- a machine the armrest section by which arc form nature was carried out to the elbow cross direction 1 side and which started and established the wall in the top-face proper place of the body of a chair prepared in both sides A person fixes a body hand part on the armrest section in the state of taking a seat, and only inputs a power source. the condition that the body hand part was stabilized -- each **** -- free -- this body hand part -- pinch-and-swell -- since the compressed-air air-supply-and-exhaust means which can give free medical treatment is arranged -- free medical treatment -- the moderate and comfortable pneumatics to the body hand part and arm which cannot be performed in the conventional massage machine -- free medical treatment can be efficiently given from a 1 side top-face side.

[0042] moreover, with [of this invention] a hand kneading function -- free medical treatment -- a machine a compressed-air air-supply-and-exhaust means with the pinch-and-swell bag arranged by each standup wall of both the armrest section A person fixes a body hand part on the armrest section in the state of taking a seat, and only inputs a power source. since it constitutes from compressed-air feeding-and-discarding equipment opened for free passage by each pinch-and-swell bag through an each hose -- free medical treatment -- the moderate and comfortable pneumatics from the 1 side top-face side to the body hand part and arm which cannot be performed in the conventional massage machine with the pinch-and-swell bag by the side of a standup wall -- free medical treatment can be given efficiently.

[0043] furthermore, with [of this invention] a hand kneading function -- free medical treatment -- a machine said compressed-air air-supply-and-exhaust means with the pinch-and-swell bag arranged in a side besides the pinch-and-swell bag arranged by each standup wall by which arc formation was carried

out and the elbow cross direction of both the armrest section A person fixes a body hand part on the armrest section in the state of taking a seat, and only inputs a power source. since it constitutes from compressed-air feeding-and-discarding equipment opened for free passage by both ***** through an each hose -- free medical treatment -- Start and a body hand part and an arm are pinched from both sides with the side lower part else a 1 side top-face side with the pinch-and-swell bag by the side of a wall, and the pinch-and-swell bag arranged in a side besides the elbow cross direction. the moderate and comfortable pneumatics to the body hand part and arm which cannot be performed in the conventional massage machine -- free medical treatment - pneumatics pinching -- free medical treatment - pneumatics Oshiage -- free medical treatment can be made to give efficiently from both sides

[0044] furthermore, with [of this invention] a hand kneading function -- free medical treatment -- the pneumatics which has a feeling of oppression by the reinforcement to the body hand part and arm which pinch a machine in sequential multiplication with each pinch-and-swell bag of a pinch-and-swell bag group since the pinch-and-swell bag arranged in both the armrest section constitutes two or more pinch-and-swell bags in the pinch-and-swell bag group which carried out the polymerization, and cannot be performed in the conventional massage machine -- free medical treatment can be made to give efficiently

[0045] moreover, with [of this invention] a hand kneading function -- free medical treatment -- the body hand part contact side of the pinch-and-swell bag with which a machine is arranged in said both armrest section -- free medical treatment -- the case where the body hand part contact side of a pinch-and-swell bag expands since the projection is arranged -- this free medical treatment -- the reinforcement pneumatics a projection contacts this hand part and an arm and according to this -- free medical treatment can be given now proper.

[0046] It is that a person chooses pinch-and-swell actuation of a pinch-and-swell bag, and oscillating actuation of an oscillating member as arbitration, and operates these by coincidence or independent. furthermore, with [of this invention] a hand kneading function -- free medical treatment -- since it is making it arrange an oscillating member in a proper place that a machine vibrates said both armrest section top face -- free medical treatment -- vibration by the oscillating member to the body hand part and arm which cannot be performed in the conventional massage machine -- a compressed air with free medical treatment and a pinch-and-swell bag -- free medical treatment and the oscillating pneumatics by these both -- selection implementation of the free medical treatment can be carried out suitably.

[0047] furthermore, with [of this invention] a hand kneading function -- free medical treatment -- a machine the pinch-and-swell bag of said compressed-air air-supply-and-exhaust means Arrange in the top-face proper place of both the armrest section, form feeding-and-discarding path selection change means, such as a rotary bulb, in compressed-air feeding-and-discarding equipment, and it is made the configuration in which the control means of the electronic circuitry which controls this is made to build. since it is made to the configuration which carries out a feeding-and-discarding machine so that it may carry out pinch-and-swell [of these] suitably with compressed-air air-supply-and-exhaust equipment -- the air supply and exhaust from feeding-and-discarding machine opening of this pumping equipment -- free medical treatment -- a person can choose suitably and changes the order of air supply and exhaust of each pinch-and-swell bag to arbitration -- making -- free medical treatment -- the selection use of the favorite free medical treatment of a person can be carried out.

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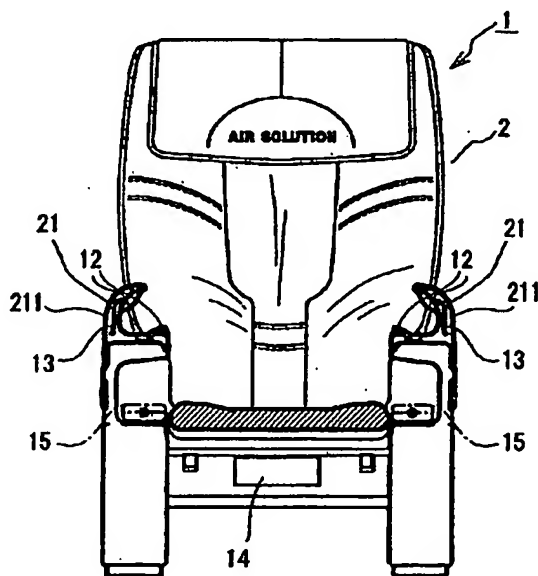
最終頁に続く

(54) 【発明の名称】 手揉機能付施療機

(57) 【要約】

【課題】 手部及び腕部を安定的に載設して、人体手部に対する断続的な圧迫を適宜に加えて効果的な空圧施療を行える手揉機能付施療機を提供する。

【解決手段】 肘幅方向一侧に弧状形成された立上り壁211を設けた肘掛部21を両側に設けた椅子本体2の上面適所に人体手部3を各々載脱自在で該人体手部2に膨縮施療を付与し得る圧縮空気給排気手段(膨縮袋12と、各膨縮袋12・12に各々ホース13・13を介して連通される圧縮空気給排装置14)を配設して成り、施療者が着座状態で人体手部3を両肘掛部21・21上面に安定的に保持させて、人体手部3及び腕部の上側面から効率良く空圧施療する事ができるよう構成したものである。



【特許請求の範囲】

【請求項1】 椅子本体の両肘掛部の上面適所に人体手
部を各々載脱自在で該人体手部に膨縮施療を付与し得る
圧縮空気給排気手段を配設した手揉機能付用施療機であ
って、該施療機の前記各肘掛部が、肘幅方向一側に弧状
形成された立上り壁を設けた肘掛部である事を特徴とす
る手揉機能付施療機。

【請求項2】 前記圧縮空気給排気手段を、両肘掛部の
各立上り壁に配設される膨縮袋と、各膨縮袋に各々ホー
スを介して連通される圧縮空気給排装置とで構成する事
を特徴とする請求項1記載の手揉機能付施療機。

【請求項3】 前記圧縮空気給排気手段を、両肘掛部の
各立上り壁に配設される膨縮袋及び肘幅方向他側に配設
される膨縮袋と、両各膨縮袋に各々ホースを介して連通
される圧縮空気給排装置とで構成する事を特徴とする請
求項1記載の手揉機能付施療機。

【請求項4】 前記両肘掛部に配設される膨縮袋が、二
以上の膨縮袋を重ねさせた膨縮袋群である事を特徴とす
る請求項2及び請求項3記載の手揉機能付施療機。

【請求項5】 前記両肘掛部に配設される膨縮袋の人体
手担当接側に、膨縮施療を強度に付与し得る施療突起を
配設した事を特徴とする請求項2乃至請求項4記載の手
揉機能付施療機。

【請求項6】 前記両肘掛部上面を振動させるに振動部
材を適所に配備させた事を特徴とする請求項1乃至請求
項5記載の手揉機能付施療機。

【発明の詳細な説明】

【0001】

【産業上の利用分野】本発明は、圧縮空気の給排に応じ
て膨脹・収縮する膨縮機構によって、施療者の手部に断
続的に圧迫を加えて施療を行なう機構を備えた手揉機能
付施療機に関するものである。

【0002】

【従来の技術】従来の椅子式マッサージ機は、例えば、
空気圧利用式のものにおいては、リクライニング可能な
背凭れ部に、人体の腰部や背部や頸部をマッサージする
為に、空気圧変化によって膨脹・収縮する袋体を内装
し、また、座部に、臀部や大腿部をマッサージする為の
前記同様の袋体を、内装して構成したものが一般的に知
られている。

【0003】また、近年においては、前記のような構成
に加えて、脚部をマッサージする為の上記同様の袋体を
内装した出脱可能な脚載せ部を設けて構成した椅子式空
気圧マッサージ機も周知のものとなっている。

【0004】上記のような椅子式空気圧マッサージ機に
おいては、上記人体各部位に対応するように配設された
各々の袋体に空気の吸排気を行わせるよう、これにホー
スを介して圧縮空気給排装置を連通させる必要がある。

【0005】またこの圧縮空気給排装置は、例えば座部
の下などに内装されるよう設置されるのであるが、該給

排装置から給排される圧縮空気は、前記ホースを介して
袋体を膨脹及び収縮させ、上記人体各部位を断続的に圧
迫してマッサージを行なうことができ、揉み玉やローラ
ー等によるマッサージに比較して、摩擦の少ないマッサ
ージができるようにしている。

【0006】また、上記椅子式空気圧マッサージ機を採
用した椅子の、背凭れ部にリクライニング機構を設け、
脚載せ部に出脱機構を設けることにより、使用者の身体
を略水平な状態にでき、この状態で空気圧マッサージを
行えるため、比較的快適な状態でのマッサージを行う事
ができる。

【発明が解決しようとする課題】

【0007】この種従来の椅子式空気圧マッサージ機に
おいては、空気圧変化によって膨脹及び収縮する袋体を
背凭れ部や座部の他、他部位に亘って配設させることが
でき、これら各袋体に空気を給排気させて、それぞれ、
人体の、腰部や背部の他、頸部や臀部或は大腿部や脚部
に適度な空気圧マッサージを施す事ができるのである
が、人体の局部における、特に手部位に対する空気圧マ
ッサージを施す事ができず、またこのような手部位を専門
的にマッサージできるような局部専用マッサージ機も開発
されていないのが現状である。

【0008】本発明は、上記のような問題点に鑑みてな
されたものであり、手部位及び腕部を安定的に載設して、
手部位や腕部に対する効果的な空圧施療を行える手揉機能
付施療機を提供する事を目的としてなされたものである。

【0009】

【課題を解決するための手段】すなわち、本発明の手揉
機能付施療機は、椅子本体の両肘掛部の上面適所に人体
手部位を各々載脱自在で該人体手部位に膨縮施療を付与し得
る圧縮空気給排気手段を配設した手揉機能付用施療機であ
って、該施療機の前記各肘掛部が、肘幅方向一側に弧
状形成された立上り壁を設けた肘掛部に各々形成して、
人体手部位を両肘掛部上面に安定的に保持させて手部位に効
率良い空圧施療を行なわせる事ができるようにする事を
特徴とするものである。

【0010】また本発明の手揉機能付施療機は、前記圧
縮空気給排気手段を、両肘掛部の各立上り壁に配設され
る膨縮袋と、各膨縮袋に各々ホースを介して連通される
圧縮空気給排装置とで構成して、人体手部位を両肘掛部上
面に安定的に保持させて立上り壁側の膨縮袋により手部位
側方を効率良く空圧施療を行なわせる事ができるように
した事を特徴とするものである。

【0011】更に本発明の手揉機能付施療機は、前記圧
縮空気給排気手段を、両肘掛部の各立上り壁に配設され
る膨縮袋及び肘幅方向他側に配設される膨縮袋と、両各
膨縮袋に各々ホースを介して連通される圧縮空気給排装
置とで構成し、人体手部位を両肘掛部上面に安定的に保持
させて立上り壁側の膨縮袋と肘幅方向他側に配設される

膨縮袋により、手部両側を挾持して効率良く空圧治療を行なわせる事ができるようにした事の特徴とするものである。

【0012】更にまた本発明の手揉機能付治療機は、前記両肘掛部に配設される膨縮袋が、二以上の膨縮袋を重合させた膨縮袋群に構成し、手部に強度な空圧治療を効率良く行なわせる事ができるようにした事の特徴とする。

【0013】また、本発明の手揉機能付治療機は、前記両肘掛部に配設される膨縮袋の人体手部当接側に治療突起を配設し、手部に強度な空圧治療を適格に付与する事ができるように構成した事の特徴とするものである。

【0014】更に本発明の手揉機能付治療機は、前記両肘掛部上面を振動させるに振動部材を適所に配備させ、手部に振動部材による振動治療と膨縮袋による圧空治療とを同時或いは単独で任意に行なわせる事ができるように構成した事の特徴とする。

【0015】よって、本発明の手揉機能付治療機は、上記のように構成することにより次のような作用をもたらす。まず、本発明の手揉機能付治療機においては、肘幅方向一側に弧状形成された立上り壁を設けた肘掛部を両側に設けた椅子本体の上面適所に、人体手を各々載脱自在で該人体手部に膨縮治療を付与し得る圧縮空気給排気手段を配設している為、治療者は着座状態で人体手を両肘掛部上面に安定的に保持させて、人体手及び腕部の上側面から効率良く空圧治療する事ができる。

【0016】また、本発明の手揉機能付治療機は、圧縮空気給排気手段を、両肘掛部の各立上り壁に配設される膨縮袋と、各膨縮袋に各々ホースを介して連通される圧縮空気給排装置とで構成している為、立上り壁側の膨縮袋により人体手及び腕部を上側面から効率良く空圧治療を行なわせる事ができる。

【0017】更に本発明の手揉機能付治療機は、前記圧縮空気給排気手段を、両肘掛部の各立上り壁に配設される膨縮袋及び肘幅方向他側に配設される膨縮袋と、両各膨縮袋に各々ホースを介して連通される圧縮空気給排装置とで構成している為、人体手を立上り壁側の膨縮袋と肘幅方向他側に配設される膨縮袋により両側から挾持して、人体手及び腕部を上側面と下部から効率良く空圧治療・空圧挾持治療・空圧押し治療を行なわせる事ができる。

【0018】更に、本発明の手揉機能付治療機は、両肘掛部に配設される膨縮袋が、二以上の膨縮袋を重合させた膨縮袋群に構成している為、人体手及び腕部を膨縮袋群の膨縮袋で順次相乗的に挾持して強度で圧迫感のある空圧治療を効率良く行なわせる事ができるのである。

【0019】また、本発明の手揉機能付治療機は、前記両肘掛部に配設される膨縮袋の人体手部当接側に治療突起を配設している為、膨縮袋の人体手部当接側が膨張した場合にこの治療突起が該手や腕部に当接し、これに

よる強度な空圧治療を適格に付与する事ができる。

【0020】更に本発明の手揉機能付治療機は、前記両肘掛部上面を振動させるに振動部材を適所に配備させている為、治療者が膨縮袋の膨縮動作や振動部材の振動動作を任意に選択して、これらを同時或いは単独で動作させる事で、人体手や腕部に振動部材による振動治療と膨縮袋による圧空治療と、これら両者による振動空圧治療を適宜に選択実施させる事ができる。

【0021】

【発明の実施の態様】以下、本発明の手揉機能付治療機を、図面に示す一実施形態に基づいてこれを詳細に説明する。図1は、本発明の手揉機能付治療機の一実施形態を示す説明図であり、図2は本発明の手揉機能付治療機における圧縮空気給排気手段の膨縮袋が収縮した一実施形態を示す説明図であり、図3は本発明の手揉機能付治療機における圧縮空気給排気手段の膨縮袋が膨張した一実施形態を示す説明図であり、図4乃至図9は本発明の手揉機能付治療機における圧縮空気給排気手段を備えた肘掛部の一実施形態を示す説明図であり、図10は本発明の手揉機能付治療機の一実施形態を示す説明図であり、図11は本発明の手揉機能付治療機の一実施形態を示す斜視図であり、図12及び図13は本発明の手揉機能付治療機の一実施形態を示す使用状態図である。

【0022】すなわち、本発明の手揉機能付治療機1は、図10及び図11に示したように、肘幅方向一側に弧状形成された立上り壁211を設けた肘掛部21を椅子本体2の両側に設けており、その肘掛部21の上面に人体手3を各々載脱自在で該人体手2に膨縮治療を付与し得るよう、圧縮空気給排気手段（膨縮袋12と、各膨縮袋12・12に各々ホース13・13を介して連通される圧縮空気給排装置14）を配設して成り、治療者が着座状態で人体手3を両肘掛部21・21上面に安定的に保持させて、人体手3及び腕部の上側面から効率良く空圧治療する事ができるように構成したものである。

【0023】また、前記手揉機能付治療機1は、図1に示したように、椅子本体2の両肘掛部21・21の上面適所に固定板11を配設し、該固定板11の上部左右の少なくとも一側に膨縮袋12を配設し、要すれば、該固定板11の上部左右に一定間隔を存して膨縮袋12・12を対設して、これらを各肘掛部21の内部に内装しており、且つ、椅子本体2の座部下部に外部電源（図示せず）に接続される圧縮空気給排装置14を配設し、該装置14と各膨縮袋12・12間に各々ホース13・13を介して、圧縮空気給排装置14からの給排気をホース13・13を介して各膨縮袋12・12に連繋させ、各膨縮袋12・12を所定の時間毎のサイクルで繰り返し膨縮させる事ができるようにしている。

【0024】そして、前記図1で示した固定板11の一侧を弧状に曲折して釣針形状に立設させた状態にしてこ

れを肘掛部21に内装させる事で、図10及び図11のような外形状に形成できるものであり、このような状態にする事で施療者は図12及び図13に示したような着座状態で両肘掛部21・21上の人体手部3をその上面から空圧施療行なうようにする事ができるのである。

【0025】また、前記椅子本体2の両肘掛部21・21の上面適所に配設される膨縮袋12は、前述したように、弧状に曲折した固定板11の上部左右の少なくとも曲折側側に膨縮袋12を配設すれば良いが、該固定板11の上部左右に一定間隔を存して一対の膨縮袋12・12を対設させたり、図2及び図3に示したように、固定板11の上部左右に一定間隔を存して重合状に膨縮袋12・12・12・12（膨縮袋群）を夫々対設させたりする事で、これらに圧縮空気給排気装置14からの圧空を給排気させて膨縮させ、使用者の人体手部3及び腕部を一侧上面側と他側下部側の両側から順次挟持して、圧迫感のある施療を実施する事ができるようになる。

【0026】図4乃至図6は、前記肘幅方向側に弧状形成された立上り壁211を設けた肘掛部21の一実施形態を示すものであり、上記したように椅子本体2に配設された立上り壁211内に、該立上り壁211を有する肘掛部21の上面形状に沿設するよう弧状曲折された固定板11と該固定板11の立上り壁21側に固定配備された膨縮袋12を内装し、該膨縮袋12には圧縮空気給排装置14からの圧空を給排気させる為のホース13が連通状に介設されている。

【0027】また、図7乃至図9は、前記肘幅方向側に弧状形成された立上り壁211を設けた肘掛部21の他の実施形態を示すものであり、上記したように椅子本体2に配設された立上り壁211内に、該立上り壁211を有する肘掛部21の上面形状に沿設するよう弧状曲折された固定板11と該固定板11の立上り壁21側に固定配備された膨縮袋12及び肘掛部21の肘幅方向他側に配設される膨縮袋12とを内装し、両各膨縮袋12・12には圧縮空気給排装置14からの圧空を給排気させる為のホース13が各々連通状に介設されている。

【0028】尚、前記固定板11は、膨縮袋12を配設する際に肘掛部21上面に安定した状態で固定配備させる為のものであるが、その配置場所が安定している場合にはこれを設ける必要はない。

【0029】また図4乃至図9における15は、前記肘掛部21上面を振動させる為の振動部材であり、図面においては、肘掛部21の中間部に配設したものを例示した。

【0030】該振動部材15は、肘掛部21上面を振動させるものであれば錘部材を駆動モータに偏心状に設けたものや電磁式のもの等のどのようなものであっても良く、また、その取付位置も適宜に決定される。

【0031】上記した振動部材15を設けた場合には、施療者が膨縮袋12の膨縮動作や振動部材15の振動動

作を任意に選択する事により、これらを同時或いは単独で作動させる事ができ、具体的には、振動部材15による振動施療と膨縮袋12による圧空施療と、これら両者による振動空圧施療を施療者の人体手部3や腕部に適宜に選択実施させる事ができる。

【0032】22は、圧縮空気給排装置14に接続されるリモコンスイッチ等の外部電源であり、図13ではこの外部電源22を一侧の肘掛部21内側に配設した場合を例示しているが、施療者に容易で安全な電源切替を行なわせる事ができるようにする為に、肘掛部21上面適所或いは肘掛部21の人体手部3指先位置対応位置やその近郊に配備させる事が好ましい。

【0033】尚、前記膨縮袋12は、弾性を有し、空気漏れ防止に有効なポリウレタン等の素材や膨らみ過ぎ防止に有効な6-ナイロン等の合成繊維で袋状に構成されるものであり、例えば、内層の素材に空気漏れ防止に有効なポリウレタン等の合成繊維を使用し、また、外層の素材に膨らみ過ぎ防止に有効な6-ナイロン等の合成繊維を用いて、内外二層を有する袋体としても良い。

【0034】12aは、前記膨縮袋12の上面部に配設された施療突起であり、該施療突起12aを配備させる事で、膨縮袋12の人体手部3当接側が膨張した場合にこの施療突起12aが該手部3や腕部に当接し、これによる強度な空圧施療を適格に付与する事ができるようになる。

【0035】尚、該施療突起12aは、施療袋12上面に一定間隔毎に配備してもよく、また不規則的に設けてもよく、更にその形状や構成も限定されるものではない。

【0036】前記ホース13は、ビニール材等の合成樹脂を中空状に形成されており、該ホース13の基端を圧縮給排気装置14に接続すると共にその至端を前記膨縮袋12に接続し、前記膨縮袋12に圧縮給排気装置14からの給排気を伝達してこれを膨縮させるための仲介をなすものである。

【0037】前記圧縮空気給排装置14は、例えば、電動エアーコンプレッサ等の空気圧縮機構を内蔵した装置であり、前記ホース13を介して上記膨縮袋12へ圧縮空気を給排気させるためのものである。

【0038】前記圧縮空気給排装置14は、前述したようにホース13を介して膨縮袋12に連通するよう構成されているが、該圧縮空気給排装置14にロータリバルブ等の給排通路選択切替手段を設ける事で、該給排装置14の給排気口からの給排気を施療者が選択できるようにする事もでき、これにより、各膨縮袋12・12の給排気順を任意に変化させるようにする事もできる。

【0039】また、前記のように給排通路選択切替手段を設ける場合には、前記給排気制御装置（図示せず）のロータリバルブ等の給排通路選択切替手段を制御する電子回路等の制御手段を内蔵させて構成する。

【0040】よって、上記した本発明の手揉機能付施療機1を使用するにあつては、施療者が椅子本体2の座部に着座して人体手部3を肘掛部21上に載設し、圧縮空気給排装置14に接続されるリモコンスイッチ等の外部電源22を入力するだけで該電源22からの電力供給により、人体手部3及び腕部の一侧上面側から効率良く適宜の空圧施療を行なわせる事ができるのである。

【0041】

【発明の効果】よって、本発明の手揉機能付施療機は、肘幅方向一侧に弧状形成された立上り壁を設けた肘掛部を両側に設けた椅子本体の上面適所に、人体手部を安定した状態で各々載脱自在で該人体手部に膨縮施療を付与し得る圧縮空気給排気手段を配設している為、施療者は着座状態で人体手部を肘掛部に載設して電源を入力するだけで、従来のマッサージ機では行い得ない人体手部及び腕部への適度で快適な空圧施療を一侧上面側から効率良く行う事ができる。

【0042】また、本発明の手揉機能付施療機は、圧縮空気給排気手段を、両肘掛部の各立上り壁に配設される膨縮袋と、各膨縮袋に各々ホースを介して連通される圧縮空気給排装置とで構成している為、施療者は着座状態で人体手部を肘掛部に載設して電源を入力するだけで、立上り壁側の膨縮袋により、従来のマッサージ機では行い得ない人体手部及び腕部への一侧上面側からの適度で快適な空圧施療を効率良く行う事ができる。

【0043】更に本発明の手揉機能付施療機は、前記圧縮空気給排気手段を、両肘掛部の弧状形成された各立上り壁に配設される膨縮袋及び肘幅方向他側に配設される膨縮袋と、両各膨縮袋に各々ホースを介して連通される圧縮空気給排装置とで構成している為、施療者は着座状態で人体手部を肘掛部に載設して電源を入力するだけで、人体手部や腕部を立上り壁側の膨縮袋と肘幅方向他側に配設される膨縮袋により一侧上面側と他側下方との両側から挟持して、従来のマッサージ機では行なえない人体手部及び腕部への適度で快適な空圧施療・空圧挟持施療・空圧押上施療を両側から効率良く行なわせる事ができる。

【0044】更に、本発明の手揉機能付施療機は、両肘掛部に配設される膨縮袋が、二以上の膨縮袋を重合させた膨縮袋群に構成している為、膨縮袋群の各膨縮袋で順次相乗的に挟持して、従来のマッサージ機では行なえない人体手部及び腕部への強度で圧迫感のある空圧施療を効率良く行なわせる事ができる。

【0045】また、本発明の手揉機能付施療機は、前記両肘掛部に配設される膨縮袋の人体手部当接側に施療突起を配設している為、膨縮袋の人体手部当接側が膨張した場合にこの施療突起が該手部や腕部に当接し、これによる強度な空圧施療を適格に付与する事ができるようになる。

【0046】更に本発明の手揉機能付施療機は、前記両

肘掛部上面を振動させるに振動部材を適所に配備させている為、施療者が膨縮袋の膨縮動作や振動部材の振動動作を任意に選択して、これらを同時或いは単独で作動させる事で、従来のマッサージ機では行なえない人体手部や腕部への振動部材による振動施療と膨縮袋による圧空施療や、これら両者による振動空圧施療を適宜に選択実施させる事ができる。

【0047】更に、本発明の手揉機能付施療機は、前記圧縮空気給排気手段の膨縮袋を、両肘掛部の上面適所に配設し、圧縮空気給排装置にロータリバルブ等の給排通路選択切替手段を設け、これを制御する電子回路等の制御手段を内蔵させる構成にして、これらを圧縮空気給排気装置で適宜に膨縮するよう給排機させる構成にできる為、該吸排装置の給排機口からの給排気を施療者が適宜に選択でき、各膨縮袋の給排気順を任意に変化させて施療者の好みの施療を選択使用できる。

【図面の簡単な説明】

【図1】本発明の手揉機能付施療機の一実施形態を示す説明図である。

【図2】本発明の手揉機能付施療機における圧縮空気給排機手段の膨縮袋が収縮した一実施形態を示す説明図である。

【図3】本発明の手揉機能付施療機における圧縮空気給排機手段の膨縮袋が膨張した一実施形態を示す説明図である。

【図4】本発明の手揉機能付施療機における圧縮空気給排機手段を備えた肘掛部の実施形態を示す説明図である。

【図5】本発明の手揉機能付施療機における圧縮空気給排機手段を備えた肘掛部の実施形態を示す説明図である。

【図6】本発明の手揉機能付施療機における圧縮空気給排機手段を備えた肘掛部の実施形態を示す説明図である。

【図7】本発明の手揉機能付施療機における圧縮空気給排機手段を備えた肘掛部の実施形態を示す説明図である。

【図8】本発明の手揉機能付施療機における圧縮空気給排機手段を備えた肘掛部の実施形態を示す説明図である。

【図9】本発明の手揉機能付施療機における圧縮空気給排機手段を備えた肘掛部の実施形態を示す説明図である。

【図10】本発明の手揉機能付施療機の一実施形態を示す説明図である。

【図11】本発明の手揉機能付施療機の一実施形態を示す斜視図である。

【図12】本発明の手揉機能付施療機の一実施形態を示す使用状態図である。

【図13】本発明の手揉機能付施療機の一実施形態を示

す使用状態図である。

【符号の説明】

1 手揉機能付治療機

11 固定板

12 膨縮袋（圧縮空気給排気手段）

12a 治療突起

13 ホース（圧縮空気給排気手段）

14 圧縮空気給排装置（圧縮空気給排気手段）

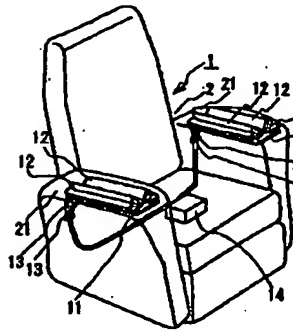
15 振動部材

2 椅子本体

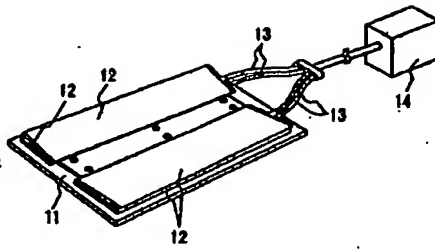
21 肘掛部

211 立上り壁

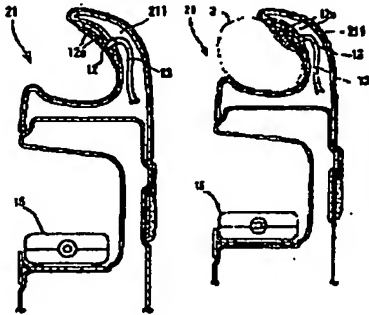
【図1】



【図2】

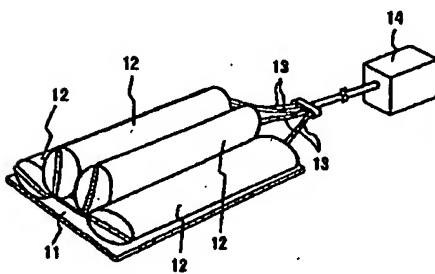


【図4】

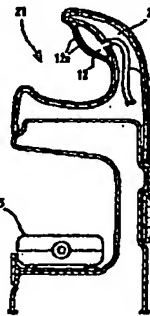


【図6】

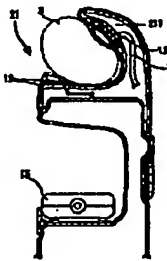
【図3】



【図5】

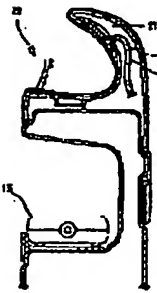


【図9】

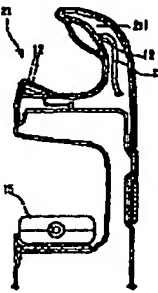


【図11】

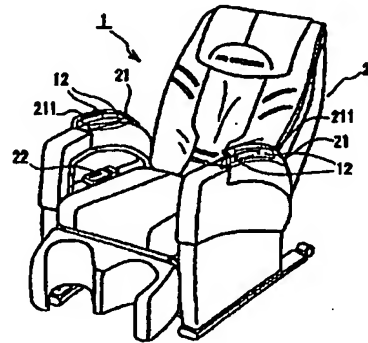
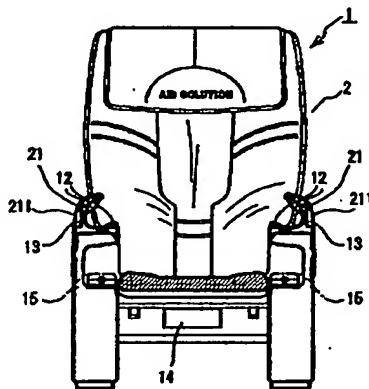
【図7】



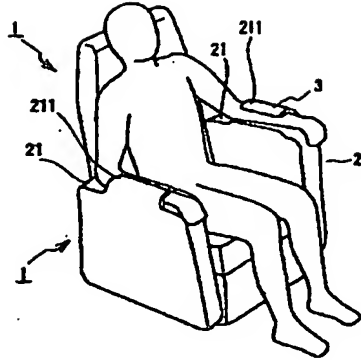
【図8】



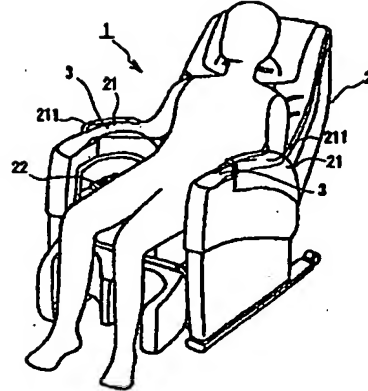
【図10】



【図12】



【図13】



フロントページの続き

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